

REMARKS

Claims 1-44, 57-59, and 62 were presented and examined. In response to the Office Action, claims 1, 12, 13, 20-22, 30, 33, 35, 57 and 59 are amended; Claim 63 is added and Claims 36-44 and 62 are canceled. Claims 45-56 and 60-61 were previously canceled. Applicants respectfully request reconsideration in view of the following remarks.

I. In the Specification

Applicants amend paragraphs [0035] and [0039] of the application as originally filed to remove the reference to a “signal.” Approval of the amendment is respectfully requested.

II. Claims Rejected Under 35 U.S.C. § 101

Claims 1-44, 57-59 and 62 are rejected under 35 U.S.C. § 101 because it is alleged that the claimed invention is directed to non-statutory subject matter.

Specifically, **Claims 1-19, 22-34, 37-43, 57, 58 and 62** are rejected under 35 U.S.C. § 101 as not falling within one of the four statutory categories of invention. Applicants amend independent claims 1, 22 and 57 to recite the particular machine that performs the recited operations. Thus, amended claims 1, 22 and 57 are directed to statutory subject matter. Claims 2-19, 23-34 and 58 depend from claims 1, 22 and 57, respectively, and incorporate the limitations thereof. Thus, these dependent claims are also directed to statutory subject matter. Claims 37-43 and 62 are canceled. Therefore, the rejection of these claims is moot.

Claims 20, 21, 35, 36, 44 and 59 are drawn to a signal; a “signal” is ineligible for patent protection because it does not fall within any of the four statutory classes. Applicants amend the specification, as originally filed, in paragraphs [0035] and [0039] to remove the reference to a signal. Claims 36 and 44 are canceled. Therefore, the rejection of these claims is moot. Accordingly, withdrawal of the 35 U.S.C. § 101 rejection is respectfully requested.

III. Claims Rejected Under 35 U.S.C. § 112

Claims 1-21, 37-44, 57-59 and 62 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. **Claims 2-19, 38-43 and 58** are rejected because they depend from a rejected claim.

The Examiner indicates that the recited limitations “transmitting the pair of time-stamp request packets to two consecutive hops on the end-to-end path” are not supported by the specification. Applicants respectfully disagree. In paragraph [0058] of the specification as originally filed and Figure 5, it is described and shown that two consecutive requests are sent to consecutive routers. In paragraph [0028] of the specification as originally filed, it is described that the term “hop” is used collectively to refer to routers or hosts along an end-to-end path. As such, Applicants respectfully request that the 35 U.S.C. § 112 rejection be withdrawn.

IV. Claims Rejected Under 35 U.S.C. § 103

Claims 1-5, 7-10, 14-17, 19-21, 37-42, 44, 57, 59 and 62 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Publication No. 2004/0146056 filed by Martin (“Martin”) in view of U.S. Publication No. 2003/0152034 filed by Zhang, et al. (“Zhang”).

Claim 1, as amended, recites “generating and transmitting....a first time-stamp request packet to a first hop and subsequent two time-stamp request packets to a second hop, wherein the first time-stamp request packet and the subsequent two time-stamp request packets are three consecutive request packets, and the first hop and the second hop are two consecutive hops on the end-to-end path;” “receiving an initial time stamp from the first hop and two subsequent time stamps from the second hop in response to the three consecutive request packets;” and “generating and transmitting.... a first packet of a pair of consecutive time-stamp request packets to the first hop and a second packet of the pair to the second hop.” Support for the amendments may be found, for example, in paragraphs [0058]-[0068] of the Specification and Figure 5 as originally filed.

The Examiner recognizes that Martin does not explicitly disclose generating a first time stamp at a first hop of two consecutive hops and a second time stamp at a second hop of the two consecutive hops (see, Office Action at page 6). Thus, for at least the same reason, Martin does

not disclose the amended limitations of “receiving an initial time stamp from the first hop and two subsequent time stamps from the second hop in response to the three consecutive request packets,” “whereinthe first hop and the second hop are two consecutive hops on the end-to-end path,” as recited in claim 1. Zhang does not supply this missing element.

Zhang discloses generating and transmitting two pair of packets, with each pair transmitted to one of two consecutive routers (Figure 11). Each pair of packets includes a large packet and a small packet. The large packet is set to expire at one of the consecutive routers and the small packet is delivered to the destination. Zhang does not disclose generating and transmitting three consecutive packets followed by a pair of packets. Rather, Zhang discloses the transmission of two pairs of packets. Further, Zhang does not disclose “receiving an initial time stamp from the first hop and two subsequent time stamps from the second hop in response to the three consecutive request packets.” As the two large packets expire at the consecutive routers and the two small packets are delivered to the destination, none of the nodes in the network of Zhang can receive three time stamps, including an initial time stamp from the first hop and two subsequent time stamps from the second hop, in response to the three consecutive request packets. For at least the foregoing reasons, amended claim 1 is non-obvious over Martin in view of Zhang.

Analogous discussions apply to independent claims 20 and 21, which are amended to include analogous limitations. Claims 2-5, 7-10, 14-17, 19 depend from claim 1 and incorporate the limitations thereof. Thus, these dependent claims are non-obvious over Martin in view of Zhang for at least the same reason as mentioned above.

With respect to independent claims 57 and 59, Applicants amend these claims to recite “, the end-to-end path including a wireless link;” and “transmitting... ping requests interleaved with voice packets to a hop on the path.” Support for the amendments may be found, for example, in paragraphs [0092]-[0093] of the Specification as originally filed.

Martin and Zhang do not disclose a wireless link in the end-to-end path and ping requests interleaved with voice packets. Therefore, claims 57 and 59 are non-obvious over Martin in view of Zhang. New claim 63 depends from claim 57 and incorporates the limitations thereof.

Support for claim 63 may be found, for example, in paragraphs [0092]-[0093] of the Specification as originally filed. Thus, claim 63 is non-obvious over Martin in view of Zhang for at least the same reason.

Claims 37-42, 44 and 62 are canceled. Therefore, the rejection of these claims is moot.

Accordingly, withdrawal of the rejection of claims 1-5, 7-10, 14-17, 19-21, 37-42, 44, 57, 59 and 62 is respectfully requested.

Claims 6 and 11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Martin in view of Zhang as applied to claim 1 and further in view of U.S. Publication No. 2004/0210632 filed by Carlson, et al. (“Carlson”).

Claims 6 and 11 depend on base claim 1 and incorporate the limitations thereof. Therefore, in view of at least the reasons discussed in connection with claim 1, Martin in view of Zhang fails to teach or suggest each element of claims 6 and 11. In addition, Carlson fails to teach or suggest the amended limitations of claim 1. The Examiner has not cited and Applicants are unable to discern the section of Carlson that teaches or suggests the amended elements in claim 1. Thus, claims 6 and 11 are patentable over the cited art because of their dependencies on claim 1. Accordingly, reconsideration and withdrawal of the rejection of claims 6 and 11 is respectfully requested.

Claims 12 and 13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Martin in view of Zhang as applied to claims 1 and 5, and further in view of U.S. Patent No. 7,068,677 issued to Arai, et al. (“Arai”).

Claims 12 and 13 depend on base claim 1 and incorporate the limitations thereof. Therefore, in view of at least the reasons discussed in connection with claim 1, Martin in view of Zhang fails to teach or suggest each element of claims 12 and 13. In addition, Arai fails to teach or suggest the amended limitations of claim 1. The Examiner has not cited and Applicants are unable to discern the section of Arai that teaches or suggests the amended elements in claim 1. Thus, claims 12 and 13 are patentable over the cited art because of their dependencies on claim 1.

Accordingly, reconsideration and withdrawal of the rejection of claims 12 and 13 is respectfully requested.

Claims 18 and 43 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Martin in view of Zhang as applied to claims 1 and 17, and further in view of U.S. Publication No. 2003/0040320 filed by Lucidarme, et al. (“Lucidarme”).

Claim 43 is canceled. Therefore, the rejection of claim 43 is moot.

Claim 18 depends on base claim 1 and incorporate the limitations thereof. Therefore, in view of at least the reasons discussed in connection with claim 1, Martin in view of Zhang fails to teach or suggest each element of claim 18. In addition, Lucidarme fails to teach or suggest the amended limitations of claim 1. The Examiner has not cited and Applicants are unable to discern the section of Lucidarme that teaches or suggests the amended elements in claim 1. Thus, claim 18 is patentable over the cited art because of its dependency on claim 1. Accordingly, withdrawal of the rejection of claims 18 and 43 is respectfully requested.

Claims 22-32 and 34 (presumable, **claims 22-32 and 34-36**) are rejected under 35 U.S.C. § 103(a) as being unpatentable over Martin in view of Zhang as applied to claims 1, and further in view of U.S. Publication No. 2003/0236827 filed by Patel (“Patel”).

Applicants amend independent claim 22 to recite “generating and transmitting, by an origination node on the end-to-end path, a first time-stamp request packet to a first hop and subsequent two time-stamp request packets to a second hop, wherein the first time-stamp request packet and the subsequent two time-stamp request packets are three consecutive request packets, and the first hop and the second hop are two consecutive hops on the end-to-end path;” “receiving an initial time stamp from the first hop and two subsequent time stamps from the second hop in response to the three consecutive request packets;” “generating and transmitting, by the origination node, a first packet of a pair of time-stamp request packets to the first hop and a second packet of the pair to the second hop, the pair of time-stamp request packets having an origination address of the origination node spoofed to that of another hop on the network.” Support for the amendments may be found, for example, in paragraphs [0058]-[0068] of the Specification and Figure 5 as originally filed. Independent claim 35 is amended to include analogous limitations. Claim 36 is canceled.

For at least the reasons mentioned above with respect to claim 1, Martin in view of Zhang does not teach or suggest each of the elements of amended claims 22 and 35.

Claims 23-32 and 34 depend on base claim 22 and incorporate the limitations thereof. Therefore, in view of at least the reasons discussed in connection with claim 22, Martin in view of Zhang fails to teach or suggest each element of claims 23-32 and 34. In addition, Patel fails to teach or suggest the limitations of claims 22 and 35. The Examiner has not cited and Applicants are unable to discern the section of Patel that teaches or suggests the amended elements in claims 22 and 35. Thus, claims 23-32, 34 and 35 are patentable over the cited art. Accordingly, withdrawal of the rejection of claims 22-32 and 34-36 is respectfully requested.

Claim 33 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Martin in view of Zhang and Patel, as applied to claim 22, and further in view of Lucidarme.

Claim 33 depends from claim 22 and incorporates the limitations thereof. Thus, for at least the reasons discussed in connection with claim 22, Martin in view of Zhang and Patel fails to teach or suggest each element of claim 33. In addition, Lucidarme fails to teach or suggest the elements in amended claim 22. The Examiner has not cited and Applicants are unable to discern the portion of Lucidarme that allegedly teaches or suggests the amended elements in claim 22. As a result, the cited art fails to teach or suggest each element in claim 33 because of its dependency on amended claim 22. Accordingly reconsideration and withdrawal of the rejection of claim 33 is respectfully requested.

Claim 58 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Martin in view of Zhang as applied to claim 57, and further in view of U.S. Publication No. 2007/0233946 filed by Jewett, et al. ("Jewett").

Claim 58 depends from claim 57 and incorporates the limitations thereof. Thus, for at least the reasons discussed in connection with claim 57, Martin in view of Zhang fails to teach or suggest each element of claim 58. In addition, Jewett fails to teach or suggest the amended elements in claim 57. The Examiner has not cited and Applicants are unable to discern the portion of Jewett that allegedly teaches or suggests the amended elements in claim 57. As a result, the cited art fails to teach or suggest each element in claim 58 because of its dependency

on claim 57. Accordingly reconsideration and withdrawal of the rejection of claim 57 is respectfully requested.


CONCLUSION

In view of the foregoing, it is believed that all claims now pending patentably define the subject invention over the prior art of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes that a telephone conference would be useful in moving the application forward to allowance, the Examiner is encouraged to contact the undersigned at (408) 720-8300.

Respectfully submitted,

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